Serial No.: 08/545,707
Amendment dated June 3, 2005
Reply to Office Action of: November 10, 2004
Atty. Docket No.: 93A007

LISTING OF CLAIMS

The submitted listing of claims will replace all prior versions, and listings, of claims in the application. All claims are listed with the status in parentheses immediately following the claim number.

1. (Currently Amended) A supported inorganic layer comprising contiguous particles of a crystalline molecular sieve, the particles having a mean particle size within the range of from 20 nm to 1 μm, wherein the support is selected from the group consisting of glass, fused quartz, silica, silicon, clay, metal, porous glass, sintered porous metal, titania, and cordierite.

2. (Original) A supported inorganic layer comprising particles of a crystalline molecular sieve, the particles having a mean particle size within the range of from 20 to 200 nm.

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

Serial No.: 08/545,707
Amendment dated June 3, 2005
Reply to Office Action of: November 10, 2004
Atty. Docket No.: 93A007

12.   (Canceled)

13.   (Currently Amended) A layer as claimed in claim 1, wherein the particle size of the molecular sieve crystals in the layer is within the range of from 20 to 500 nm. ~~,advantageously from 20 to 300 nm.~~

14.   (Currently Amended). A layer as claimed in claim 1, wherein the particle size distribution is such that at least 95% of the particles have a size within ± 33% of the mean. ~~,advantageously ±10% of the mean, and preferably ± 7.5% of the mean.~~

15.   (Currently Amended) A layer as claimed in claim 1, wherein the layer thickness is within the range from 0.1 to 20 μm. ~~,advantageously 0.1 to 15 μm, advantageously 0.1 to 2 μm.~~

16.   (Currently Amended). A layer as claimed in claim 1, wherein the layer primarily contains nanopores~~, i.e., pores between 1 and 10 nm~~ having a size of between 1 and 10 nm.

17.   (Currently Amended). A layer as claimed in claim 1, wherein the layer primarily contains micropores~~, i.e., pores between 0.2 and 1nm~~ having a size of between 0.2 and 1 nm.

18.   (Original) A layer as claimed in claim 1, wherein the layer comprises molecular sieve crystals in a particulate matrix, the pore structure being defined by the interstices between the particles, between the crystals, and between the particles and the crystals, the pore structure advantageously being between 0.2 and 1 nm in size.

19.   (Original) A layer as claimed in claim 1, wherein the molecular sieve is a zeolite.

20.   (Original) A layer as claimed in claim 1, wherein the layer is a membrane.

21.   (Canceled)

Serial No.: 08/545,707
Amendment dated June 3, 2005
Reply to Office Action of: November 10, 2004
Atty. Docket No.: 93A007

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (New) A supported inorganic layer comprising contiguous particles of a crystalline molecular sieve, the particles having a mean particle size within the range of from 20 nm to 1 µm, whereas the layer primarily contains nanopores 1 and 10 nm.

28. (New) A supported inorganic layer comprising contiguous particles of a crystalline molecular sieve, the particles having a mean particle size within the range of rom 20 nm to 1 µm, wherein the layer primarily contains micropores having a size of between 0.2 and 1 nm.

29. (New) A layer as claimed in claim 28, wherein the layer comprises molecular sieve crystals in a particular matrix, the pore structure being defined by the interstices between the particles, between the crystals, and between the particles and the crystals.